



Senate

General Assembly

File No. 666

January Session, 2005

Substitute Senate Bill No. 1258

Senate, May 4, 2005

The Committee on Appropriations reported through SEN. HARP of the 10th Dist., Chairperson of the Committee on the part of the Senate, that the substitute bill ought to pass.

AN ACT CONCERNING THE PROMOTION OF COLLABORATIVE RESEARCH APPLICATIONS WITH INDUSTRY.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. (NEW) (*Effective July 1, 2005*) (a) There is established a
2 grant program to enable institutions of higher education and industry
3 to advance talent and research capabilities in today's high-technology
4 environment. The program shall be administered by the Office of
5 Workforce Competitiveness. The office shall award grants for
6 purposes of the program to institutions of higher education and
7 business entities for the purchase, lease, or installation of equipment
8 and facilities and for personnel to operate and maintain such
9 equipment and facilities. Such equipment and facilities may include
10 specialized core facilities or the acquisition of a major piece of
11 equipment that:

12 (1) Is key to the research and development agenda of the
13 organization, enabling both high priority research and research
14 collaboration;

- 15 (2) Can be shared with other higher educational institutions;
- 16 (3) Can promote collaboration with industry and advance applied
17 research projects, such as in characterizing materials, conducting
18 preclinical research on new drugs or product testing; or
- 19 (4) Represents a major, nonincremental improvement in capacities
20 within this state.
- 21 (b) There is established a structured industry-university matching
22 research grant program administered by the Office of Workforce
23 Competitiveness. Under the program, the office shall provide
24 matching grants to institutions of higher education and businesses in
25 accordance with this subsection and subsection (a) of this section. The
26 program shall include sustained annual funding, active outreach to
27 companies and two rounds of funding annually. The program shall:
- 28 (1) Provide one-to-one matching grants not to exceed one hundred
29 thousand dollars, with in-kind match allowed for small and mid-sized
30 companies; and
- 31 (2) Involve a competitive process for funding using outside
32 reviewers and require the demonstration of commercial relevance and
33 a clear path to the marketplace for any innovations developed in the
34 course of the research project.
- 35 (c) Grants under subsections (a) and (b) of this section shall be
36 awarded based on the following order of priority:
- 37 (1) Grants that focus on strategies that support research and
38 development in institutions of higher education in the area of stem cell
39 research;
- 40 (2) Grants that focus on strategies that support additional research
41 and development in institutions of higher education in the area of
42 nanotechnology, using the findings of the study conducted in
43 accordance with section 2 of this act.

44 Sec. 2. (NEW) (*Effective from passage*) (a) The Office of Workforce
 45 Competitiveness shall, within available appropriations and in
 46 consultation with the nanotechnology advisory council established
 47 under subsection (b) of this section, prepare recommendations to
 48 advance this state's position in nanotechnology development,
 49 including recommended state investments to increase university
 50 research, develop centers of excellence and shared use facilities,
 51 promote partnerships and collaborations involving technology-based
 52 business and industry with institutions of higher education, and
 53 advance education and training programs in nanotechnology fields.
 54 No later than January 1, 2006, the Office of Workforce Competitiveness
 55 shall report its findings, in accordance with section 11-4a of the general
 56 statutes, to the joint standing committee of the General Assembly
 57 having cognizance of matters relating to higher education and
 58 employment advancement.

59 (b) The Office of Workforce Competitiveness shall establish an
 60 Advisory Council on Nanotechnology to guide the work set out under
 61 subsection (a) of this section. The advisory council shall be chaired by
 62 the executive director of the Office of Workforce Competitiveness and
 63 shall include representatives from state agencies, including the
 64 Department of Economic and Community Development, the
 65 Connecticut Development Authority and Connecticut Innovations,
 66 Incorporated, public and private institutions of higher education and
 67 representatives from the technology industry selected by the executive
 68 director of the Office of Workforce Competitiveness.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>July 1, 2005</i>	New section
Sec. 2	<i>from passage</i>	New section

HED *Joint Favorable Subst. C/R*

APP

APP *Joint Favorable*

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either House thereof for any purpose:

OFA Fiscal Note

State Impact:

Agency Affected	Fund-Effect	FY 06 \$	FY 07 \$
Workforce Competitiveness, Off.	GF - See Below	See Below	See Below

Note: GF=General Fund

Municipal Impact: None

Explanation

The bill establishes a grant program to promote collaborative research and development efforts between institutions of higher education and industry particularly in areas concerning new, emerging technologies, most specifically, stem-cell research and nanotechnology. The Office of Workforce Competitiveness (OWC) shall administer the grant program. OWC can award grants to businesses and higher education institutions for the purchase, lease, or installation of equipment and for personnel to operate such equipment.

In addition, the bill establishes a competitive matching research grant program that focuses on strategies that support research and development in the areas of stem cell and nanotechnology. There will be a cost to OWC, but it is indeterminate at this time as the extent of the grant pool is unknown.

OWC shall establish an Advisory Council on Nanotechnology and generate a report by January 1, 2006 to prepare recommendations to advance the state's position in nanotechnology development and state investments to increase university research.

OLR Bill Analysis

sSB 1258

AN ACT CONCERNING THE PROMOTION OF COLLABORATIVE RESEARCH APPLICATIONS WITH INDUSTRY**SUMMARY:**

This bill creates two linked grant programs to promote collaborative research and development efforts between colleges and universities and businesses. The grants, which can be awarded to academic institutions and businesses, can be used to acquire facilities and equipment and pay personnel. The Office of Workforce Competitiveness (OWC) administers the grants. The bill also requires OWC to make recommendations to the legislature on advancing nanotechnology development in the state and to establish a Nanotechnology Advisory Council to help it do this.

EFFECTIVE DATE: July 1, 2005, except for the nanotechnology study provision, which is effective on passage.

RESEARCH GRANTS***Facility and Equipment Acquisition***

Under the bill, OWC can award grants to businesses and higher education institutions (1) to purchase, lease, or install facilities and equipment and (2) for personnel to operate and maintain them. The facilities can include "specialized core facilities" (a term the bill does not define). A major piece of equipment is eligible for a grant if it:

1. is key to the organization's research and development agenda, enabling both high priority research and research collaboration;
2. can be shared with other colleges and universities;
3. can promote collaboration with industry and advance applied research projects, including "characterizing" materials (i.e. determining their structure and composition at the atomic level) conducting preclinical research, or product testing; or

4. represents a major, nonincremental improvement in capacity (presumably research capacity) in the state.

Matching Grants

The bill also creates a “structured industry-university” matching research grant program. This program must include two rounds of competitive funding a year, sustained annual funding, and active outreach to business. The competitive grant-making process must use outside reviewers and require the applicant to show that any innovations developed in the course of the research project is commercially relevant and has a “clear path to the marketplace.”

Under the bill, the state matches private contributions on a one-to-one basis, up to \$100,000. Small and mid-sized companies may contribute in-kind services for their match. The bill does not define small or mid-size.

Common Elements

Grants under both of the bill’s programs must be awarded first to support stem cell research and development strategies in colleges and universities; secondly to support nanotechnology efforts, if they follow the findings of OWC’s nanotechnology study (see below); and then for other types of projects. And in providing the matching grants, OWC must follow both the bill’s competitive and annual funding requirements and its requirements for the equipment and facilities grants.

NANOTECHNOLOGY STUDY

The bill requires OWC, within available appropriations, to make recommendations to the legislature to advance the state’s nanotechnology development. The recommendations must cover state investment to increase university research, develop centers of excellence and shared-use facilities, promote partnerships and collaboration between colleges and universities and technology-based businesses and industries, and advance education and training in nanotechnology. OWC must report its recommendations to the Higher Education Committee by January 1, 2006.

In making its recommendations, OWC must establish and consult with a Nanotechnology Advisory Council. The council must include representatives from (1) the Department of Economic and Community Development and other state agencies; (2) the Connecticut Development Authority and Connecticut Innovations, Inc.; (3) public and private colleges and universities; and (4) the technology industry. The OWC executive director chairs the council. It is not clear whether she selects all council members or just the industry representatives or who may add other state agencies representatives to the council.

BACKGROUND

Nanotechnology

Nanotechnology is a hybrid science that combines chemistry and engineering to manipulate molecules and atoms and place them in a pattern to produce a desired structure. It can be applied to organic and inorganic matter. Nanotechnology is potentially applicable to materials manufacture, alternative energy production, electronics, and health care products and processes.

COMMITTEE ACTION

Higher Education and Employment Advancement Committee

Joint Favorable Substitute Change of Reference

Yea 20 Nay 0

Appropriations Committee

Joint Favorable Report

Yea 50 Nay 0